

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Original) A micromachined optical scanner, comprising:
 - a base;
 - a scan plate coupled to the base in a manner that permits the scan plate to rotate relative to the base about ~~an~~ a first axis of rotation;
 - a first actuator element mechanically coupled to the scan plate;
 - a second actuator element mechanically coupled to the scan plate;
 - a first driver element electromagnetically coupled to the first actuator element; and
 - a second driver element capacitively coupled to the second actuator element;
 - wherein the first and second actuator elements are operable to rotate the scan plate about the first axis of rotation responsive to the first and second driver elements.
2. (Original) The micromachined optical scanner of claim 1 wherein the first actuator element is a conductive coil.

3. (Original) The micromachined optical scanner of claim 2 wherein the second actuator element includes a movable comb.
4. (Original) The micromachined optical scanner of claim 2 wherein the second actuator element includes a substantially planar electrode.
5. (Original) The micromachined optical scanner of claim 1 further including a torsion arm that supports the scan plate.
6. (Original) The micromachined optical scanner of claim 5 wherein the first actuator is mechanically coupled directly to the torsion arm.
7. (Currently Amended) The micromachined optical scanner of claim 5 wherein the ~~first~~ second actuator includes a first capacitive plate positioned on ~~one of the torsion arm and the movable mass~~ the scan plate; and the ~~first~~ second driver element includes a second capacitive plate positioned to produce an electrostatic force between the first and second capacitive plates when a voltage is applied between the first and second capacitive plates.
8. (Original) A microelectromechanical resonant device, comprising:
 - a base;
 - a movable body coupled to the base for resonant motion relative to the base about a pivot axis;

a comb drive coupled to the movable body and oriented to produce a torque about the pivot axis; and

a magnetic coil carried by the movable body and oriented to produce a torque about the pivot axis.

9. (Original) The microelectromechanical resonant device of claim 8 further including:

a first substantially planar electrode carried by the movable body; and
a second electrode positioned to produce an electrical field extending between the first and second electrodes.

10. (Original) The microelectromechanical resonant device of claim 8 wherein the movable body and a portion of the comb drive form an integral body.

11. (Original) The microelectromechanical resonant device of claim 8 wherein the base and movable body are both formed from a semiconductor material.

12. (Original) The microelectromechanical resonant device of claim 8 wherein the movable body includes a polysilicon material.

13. (Original) The microelectromechanical resonant device of claim 8 further comprising a gimbal ring interposed between the base and the movable body, the frame

being coupled to the base and configured for movement about a second axis substantially orthogonal to the pivot axis.

14. (Withdrawn) A MEMS scanner, comprising:

- a base;
- a scan plate supported by the base and allowed to rotate about an axis;
- a first conductive coil, clockwise-wound and formed on the scan plate on a first side of the axis;
- a second conductive coil, counter-clockwise-wound and formed on the scan plate on a second side of the axis; and
- a magnet assembly coupled to the base and positioned to provide a vertical magnetic B field across the first and second conductive coils.

15. (Withdrawn) The MEMS scanner of claim 14, wherein:

- the first and second conductive coils are wired in series.

16. (Withdrawn) The MEMS scanner of claim 15, further comprising:

- only a single pair of leads electrically coupled to the first and second conductive coils.

17. (Withdrawn) The MEMS scanner of claim 14, wherein the magnet assembly further includes:

- a vertically-poled magnet beneath the scan plate.

18. (Withdrawn) The MEMS scanner of claim 14; wherein the magnet assembly further includes:

a vertically polled magnetic body beneath the base, around the perimeter of the scan plate.

19. (Withdrawn) The MEMS scanner of claim 18, wherein the vertically polled magnetic body includes:

a plurality of individual magnets.

20. (Withdrawn) The MEMS scanner of claim 18, wherein the magnet assembly further includes:

a plurality of magnets beneath the base, inside the perimeter of the scan plate polled radially to the center of the scan plate.